UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
2672	18

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2003*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8,9 and 20-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,9 and 20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: Amendment F, filed on 5/9/03.

This action is made FINAL.

2.   Claims 1-6, 8-9 and 20-22 are pending in the case. Claims 1, 6, 8-9 and 20-22

are independent claims. Claim 8 has been amended.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

2.   The specification shall conclude with one or more claims particularly pointing out and distinctly

claiming the subject matter which the applicant regards as his invention.

3.   Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. Applicants claim of "a selection block [that] receives selection

signals" is inconsistent with the claimed subject matter and renders claim 8 indefinite.

The "selection signals" of claim 8 requires clarification as to whether or not they refer

back to the "input signals" of claim 8 or to different selection signals. Additionally, the

claim language reads as though the selection block receives signals from itself.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

Claims 1-6, 8-9 and 20-22 are rejected under 35 U.S.C. 102(e) as being

anticipated by Benjamin Clifton et al., U.S. Patent 6,388,648, 5/2002.

As per independent claim 1, Clifton discloses a plurality of lookup tables (col. 10

ll. 24) each table provides a set of output data in response to received input (col. 10, ll.

24-27) and a selector that receive the set of output data and automatically selects the

set of output data corresponding to one of the plurality of lookup tables (col. 10, ll. 21-

27), the automatic selection of the set of output data is based on gamma selection

information (col. 10, ll. 21-24).

As per dependent claim 2, Clifton discloses the tables include a pass through

function that provides the received input data as the set of output data (Fig. 8).

As per dependent claim 3, Clifton discloses each of the plurality of tables stores a

plurality of set of output data (col. 10, ll. 24-27), each set of output data corresponds to

a gamma correction curve for a corresponding gamma value of the plurality of gamma

values (col. 10, ll. 24-27, 35-40), the correction curve maps values of the received input

to output values (Fig. 7).

As per dependent claim 4, Clifton discloses pixel data is provided as received

input to each of the gamma correction tables (col. 10, ll. 23-26), the table selector

comprising a mulitplexor that receives the sets of output data from the plurality of

gamma correction lookup tables (col. 10, ll. 20-27), a set of output data is selected

based on the gamma selection (col. 10, ll. 24-27). It is inherent that the table selector

comprises a multiplexor because the selector is disclosed as a controller comprising

circuitry that performs a selective function, which a mulitplexor is well known to perform.

As per dependent claim 5, Clifton discloses the gamma correction tables are

memory structures addressed by the received input data (col. 10, ll. 23-27).

As per independent claim 6, Clifton discloses the tables storing plural gamma

correction curves (col.10, ll. 25-27), the plurality of sets of gamma corrected data

includes data for each of the plurality of correction curves (col.10, ll. 25-28; Fig. 7). The

rationale as applied in the rejection as of independent claim 1 applies herein.

As per independent claim 8, Clifton discloses a first portion of the input signals select a portion of the plurality of gamma correction curves (col. 10, ll. 20-24) and a second portion of the input signals selects the plurality of gamma corrected data sets from the plurality of gamma correction curves (col. 10, ll. 16-20). The rationale as applied in the rejection of claim 6 applies herein.

As per independent claim 9, Clifton discloses storing a plurality of precomputed gamma corrected data sets corresponding to gamma curves (col. 10, ll. 24-27, 35-40;Fig. 7), the means for selecting operably coupled to the means for storing (Fig. 8), selecting a curve from the plurality of correction curves (col. 10, ll. 20-27) and position information that selects gamma corrected data set at a corresponding position on the selected curve (Fig. 7; col. 10, ll. 24-27, 35-40).

As per independent claim 20, Clifton discloses a frame buffer storing display information (Fig. 2), a gamma correction block coupled to the frame buffer (col. 10, ll. 16-20), storing a plurality of sets of precomputed gamma corrected data (col. 10, ll. 23-27), the gamma correction block receiving the display information and gamma selection information (col. 10, ll. 21-27), and providing gamma corrected data in response to the display information from a gamma correction curve selected by the gamma selection information (col. 10, ll. 25-28), and a digital to analog converter coupled to the gamma correction block (Fig. 8), the DAC receives the gamma corrected data and generates an analog display signal (col. 10, ll. 27-28).

As per independent claim 21, Clifton discloses a video graphic processor operably coupled to the frame buffer and generates at least a portion of the display information stored in the frame buffer (Fig. 2). The rationale as applied in the rejection of claim 20 applies herein.

As per independent claim 22, Clifton discloses receiving pixel information (col. 10, ll. 24), selecting a set of gamma corrected data from a plurality of sets of precomputed gamma corrected data based on pixel and gamma selection information (col. 10, ll. 21-27), the plurality of gamma corrected data corresponding to a plurality of gamma correction curves (col. 10, ll. 24-27, 35-40; Fig. 7) and converting the set of gamma corrected data from a digital format to a portion of an analog display signal (Fig. 8; col. 10, ll. 27-29).

Response to Arguments

4.   Applicant's arguments filed 5/9/03 have been fully considered but they are not

persuasive.

With respect to claims 1, 6 and 8-9, Applicant argues (pp.8-9 and 11) Clifton fails to

disclose the selector **receiving the set of output data** and (per claims 20-22)

selecting output data corresponding to a look-up table **based on gamma selection**

information.

In response, Clifton teaches receiving (i.e. reacting to in a specified manner as

defined by Merriam Webster's Collegiate Dictionary) output data in the selector as he

discloses a controller (i.e. selector) selecting among sets of lookup tables (col. 10, ll. 5-

7, 21-26) having color balance and luminance values corresponding to a desired

balance value (i.e. gamma selection information) (col. 9, ll. 55-65).

With respect to claim 2, Applicant indicates insufficient support for "a pass through

function".

In response, Clifton inherently teaches a pass through function as he discloses

that the luminance may be adjusted (col. 9, ll. 25-30), but that the adjustment process is

repeated as needed to maintain luminance (col. 9, ll. 65-67). Thus, Clifton implies that

the data not requiring correction need not be processed (i.e. a pass through function).

With respect to claim 4, Applicant traverses Examiner's assertion regarding the inherent table selector comprising a multiplexor.

In response, Examiner maintains the assertion based on Clifton's disclosure of lookup table access by multiplexing techniques (col. 8, II. 63-66).

With respect to claim 4, Applicant request a showing of sufficient support in the prior art (Clifton) for multiple gamma correction look-up tables in selecting one of the selected set of output data from the sets of output data based on the gamma selection information.

In response, Clifton discloses adjusting ROM lookup tables (i.e. multiple gamma correction look-up tables) to particular luminance and color balance values (col. 9, II. 10-13), where the a table is selected from among the sets of tables (col. 10, II. 13-15) and the selected table provides the sets of values based on received RGB input data (i.e. gamma selection information) (col. 10, II. 23-26).

With respect to claims 20-22 Applicant argues Clifton does not disclose the use of gamma correction curves to generate gamma corrected display information.

In response, Clifton teaches digitizing luminance values (i.e. gamma correction curves) (Fig. 7) and storing values corresponding to input values (col. 7, ll. 50-52, 60-65), where the stored values are represented by lookup tables (col. 8, ll. 57-63).

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
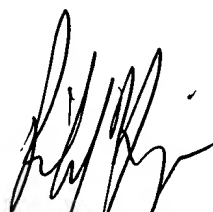
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 703-305-3937. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Chante Harrison
Examiner
Art Unit 2672

December 22, 2003

RICHARD HJEAPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600